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Susan Hanson, Bill Bacon, and Kelly Wright Shoshone-Bannock Tribes PO Box 306 Fort Hall, ID 83203 Susanh@ida.net

Dear Susan,

As you are aware the principal problems with respect to doing a study of the effects of the FMC Corporations plant on the Fort Hall Reservation population was due to the lack of defined exposures due to both a lack of definition and environmental monitoring, lack of dosage information, the very large area that the population occupied, the relatively small size and mobility of the population, and a lack of local historical health accessible records. Without attempts made to compensate for some or all of these problems a study even if competently designed was unlikely to show health effects within the people in the area even if present. Therefore, since early in 2009 the Study Design Panel had suggested a number of initiatives to the SMT to increase the likelihood that a study would show real effects if present. The SDP requested:

- 1. A Mapping Study of available environmental data to identify what was still needed to be collected and potentially areas with maximum exposures.
- 2. That a local physician or other health care practitioner be employed to provide information about medical records and interface with the local health provider institutions
- 3. The adjustment of the study design to reflect what was learned from these initiatives.

These efforts were blocked by FMC when they were raised by the Tribal experts and later by the SDP as a whole.

An interesting unexplained finding with respect to cancer and to some degree the mortality study is the uniformly lower rates in the study are than the comparison - there are generally two kinds of explanations for this - either a healthier population or an under ascertainment of the cancers in the population at risk. As no explanation is offered or posited it is hard to know which we are looking at in this situation. One conclusion is clear though without such explanation one cannot assume a heavier population.

So in conclusion it appears the Exponent study was technically competent and identified a host of reasons that these studies either could not be done at all, or could not be relied upon to justify either negative or positive conclusions about the health Effects in the population exposed to the plant. This is unfortunate and might have been mitigated to some degree (though probably not fully) by the allowance of a process to identify highly exposed subpopulations and more participation from members of the community potentially exposed.

Any continuing effort with respect to studies in this area should learn from this experience and consider smaller, highly exposed populations, or case controlled designs of children in the area at the time of the potential Exposure. These, though smaller and possible with community support, would be technically difficult to accomplish due to record and permission issues identified in the Exponent report. They might as well be unlikely to demonstrate health effects at this point, though perhaps worth exploring their feasibility.

I hope this is useful and, of course, I am willing to pursue redesigns based on this information if the Tribes are interested.

Peter Orris, MD, MPH